APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,937	06/26/2007	Paul Tidwell	3772-37	2732

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EXAMINER
MOHEBBI, KOUROUSH

ART UNIT	PAPER NUMBER
2471	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/590,937	TIDWELL, PAUL
	Examiner	Art Unit	
	KOUROUSH MOHEBBI	2471	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>13 August 2009</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
      closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>8-14</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>8-14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>28 August 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is response to application number 10590937 dated on 08/13/2009.

Response to Arguments

2.   Applicant's arguments with respect to claims 8-13 have been considered but are

      moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

3.   Claims 8-14 is rejected under 35 U.S.C. 103(a) as being unpatentable over by

      Vimpari Markku (US. 2003/0117972).

            Claim 8, Vimpari discloses a method (abstract, page 1) of optimizing the

      bandwidth usage (¶0015) on a real Time Protocol (RTP) managed link

      transporting media (communication connection) from a Media Resource Function

      node (Fig. 1, el. 14, converter node) of a cellular telecommunications network

(Fig. 1, el. 11) to User Equipment (Fig. 1, el. 12b, terminal), the method comprising:

at Media Resource Function node (Fig. 1, el. 14, converter node), monitoring (¶0011) the rate of packet loss (frame or packet loss; ¶0035) of the link to determine (¶0036) whether the rate of packet loss is unacceptably high or within acceptable limits (measuring quality parameters of communication connection; ¶0011); and

as a result of said monitoring (¶0011), adapting the sending rate from at Media Resource Function node (Fig. 1, el. 14, converter node) over the link (communication connection, Fig. 1, els. 13a and 13b) to the user Equipment by re-packetising media (increase or decrease the number of data blocks in a single RTP packet; Fig. 2, el 24; ¶0038), received at the Media Resource Function node (converter node, Fig. 1, el. 14) from third party nodes (Fig. 1, el. 12a), to either increase the size of packets sent over the link when the rate of packet loss is unacceptably high (Vimpari chooses to decreasing size of transmission packet in case of excessive transmission packet loss; ¶0038), thereby reducing packet header overhead and reducing bandwidth usage on the link (Vimpari selection of smaller size in configuration of the packet in case of higher packet loss is base on fact that losing bigger size packet and retransmission of those packet would lead to less effective usage of bandwidth; ¶0008); or to decrease the size of packets sent over the link when the rate of packet loss is within acceptable limits (Fig. 2, el. 22, ¶0038), thereby reducing the transmission delay over the link

(Vampari selection of decreasing size of packet when frame loss rate exceeds a threshold, and increasing the packet size when frame loss rate is within acceptable limits (threshold) is a matter of selecting an option and configurable. Vampari in ¶0008 discloses a configuration which intend to increase frame (packet) size by adding more packet to the frame when the rate of frame loss (packet loss) is high (for example, a link with a packet loss (frame loss) of 2% when the frame size increased by 3 times, would lead to 6% of packet loss); ¶0017; ¶0038; Fig. 2).

Claim 9, Vimpari further discloses wherein the step of monitoring (measuring) the rate of packet loss (frame or RTP packet loss) of the link (communication connection, Fig. 1, els. 13a and 13b) comprises sampling (¶0035; Fig. 2, e. 22).

Claim 10, Vimpari further discloses wherein said step of adapting the sending rate is carried out dynamically in response to the monitored rate of packet loss (Fig. 2; Vampari describes after sending the repacketised RTP packet, the device is ready to receive or send the next RTP packet using the RTP packet length adaptor according the step 24; ¶0039).

Claim 11, Vimpari further discloses wherein, in the event that media is to be repacketised (¶0017) at the Media Resource Function node (Fig. 1, el. 14,

converter node), received media is stored at the Media Resource Function (Fig.
1, el. 14, converter) in a buffer until such time as sufficient media has been
received to construct a packet of the necessary size (in ¶0042, Vimpari describes
control unit of converter (Media Resource Function) that disassembles the RTP
packets into basic packets if long RTP packet received or combine several basic
packets into one RTP Packet for transmission if the frame error rate
measurement is in acceptable range (less than threshold). The converter as
described must buffer the basic packets after disassembling or before combing
them to a larger size RTP packet for transmission when frame error rate allows;
¶0042).

Claim 12, Vimpari further discloses wherein said third party nodes are
peer User Equipment (UEs) (Fig. 1, el. 12a; ¶0017).

Claim 13, Vimpari discloses a Media Resource Function node (Fig. 1, el.
14, converter; ¶0027) for use in a cellular telecommunications network (Fig. 1, el.
11), the node handling media sent between itself and user equipment (Fig. 1, el.
12b, terminal), over a Real-Time Protocol managed (RTP) link (communication
connection, Fig. 1, els. 13a and 13b), the node comprising:

means for monitoring (¶0011) the rate of packet loss (frame or packet
loss; ¶0035) of the downlink to the User Equipment (measuring quality
parameters of communication connection 13b and 13a in Fig. 1; ¶0011) to

determine (¶0036) whether the rate of packet loss is unacceptably high or within acceptable limits (Fig. 2, el.22; ¶0035; and

means for adapting (¶0017; ¶0027), based upon the monitored properties (¶0035), the sending rate over the link (communication connection, Fig. 1, els. 13a and 13b) by re-packetising media received from third party nodes (Fig. 1, el. 12a), to increase the size of packets sent over said downlink when the rate of packet loss is unacceptably high (Vimpari chooses to decreasing size of transmission packet in case of excessive transmission packet loss; ¶0038), thereby reducing packet header overhead and reducing bandwidth usage on the link (Vimpari selection of smaller size in configuration of the packet in case of higher packet loss is base on fact that losing bigger size packet and retransmission of those packet would lead to less effective usage of bandwidth; ¶0008); or to decrease the size of packets sent over the link when the rate of packet loss is within acceptable limits (Fig. 2, el. 22, ¶0038), thereby reducing the transmission delay over the link (Vampari selection of decreasing size of packet when frame loss rate exceeds a threshold, and increasing the packet size when frame loss rate is within acceptable limits (threshold) is a matter of selecting an option among available configuration options for the transmission link. Selecting different options of a configuration option does not constitute a new invention; ¶0017; ¶0038; Fig. 2).

Claim 14, Vimpari discloses a media resource function node (Fig. 1, el. 14,

converter node; ¶0027) for use in a cellular telecommunications network (Fig. 1;

title), the media resource function node (Fig. 1, el. 14) handling media sent

between the media resource function node (Fig. 1, el. 14) and user equipment

(Fig. 1, el. 12b) over a real-time protocol managed link (Fig. 1,els. 13b and 13a;

¶0001), the media resource function node (Fig. 1, el. 14) comprising control

circuitry configured to:

monitor the rate of packet loss of a real-time protocol (¶0011; ¶0036;

¶0035) managed downlink to the user equipment (Fig. 1, el. 12b; abstract) to

determine whether a rate of packet loss (Fig. 2, el. 22) for the real-time protocol

(real-time protocol, RTP) managed downlink is unacceptably high or within

acceptable limits (packet loss (error) rate within or exceed a predetermined limit;

¶0031; ¶0036); and

adapt (¶0017; ¶0027), based upon the monitored properties (¶0011;

¶0036; ¶0035), the sending rate over the real-time protocol managed downlink by

re-packetizing media received from third party nodes (Fig. 1, el. 12a) in order to

increase the size of packets sent over the real-time protocol managed (RTP)

downlink (¶0027; ¶0031) when the rate of packet loss is unacceptably high

(exceed the predetermined threshold; ¶0031; ¶0036) to reduce packet header

overhead and reducing bandwidth usage (¶0017; ¶0019; ¶0002-¶0003; ¶0006;

¶0008) on the real-time protocol managed downlink (RTP) or to decrease the

size of packets (¶0036) sent over the real-time protocol managed downlink when

the rate of packet loss is within acceptable limits (¶0036; ¶0038) to reduce the transmission delay (¶0003) over the real-time protocol (RTP) managed downlink (Vampari selection of decreasing size of packet when frame loss rate exceeds a threshold, and increasing the packet size when frame loss rate is within acceptable limits (threshold) is a matter of selecting an option and configurable (design choice). Vampari in ¶0008 discloses a configuration similar to present application, which increases frame (packet) size by adding more packet to the frame when the rate of frame loss (packet loss) is high (for example, a link with a packet loss (frame loss) of 2% when the frame size increased by 3 that result to 6% of packet loss); ¶¶0017; ¶0038; Fig. 2)

3.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference Phillips et al. (US 5,490,168) US published date 06 Feb 1996, discloses a method and communication system provides automatic optimization by adjusting the encoder of the transmitter to use a long packet length during low error counts and a short packet length during high error count.

The reference Pazhyannur et al. (US 2003/0161326) US filling date 25 Feb 2002, discloses a method and apparatus to monitor bit error rate of the transmission media and change dynamically the size of transmission packets for optimal frame size.

The reference Dzung Dacfey (EP 1120932 A1) published date 1 Aug 2001 discloses a

method in data transmission to use variable packet length base on packet error rate and

determines the optimal data length for the transmission.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KOUROUSH MOHEBBI whose telephone number is

(571)270-7908. The examiner can normally be reached on Monday to Thursday,

8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K.M.
11/16/2009

/Chi H Pham/

Supervisory Patent Examiner, Art Unit 2471